

REMARKS/ARGUMENTS

Claims 12 - 21 are pending in this application. By this amendment, Claims 13-19 have been amended. No new matter has been added. Reexamination and reconsideration of the application, in light of the new claims, is requested.

Claim Objections

The examiner objected to Claim 13, noting that “claim 13 should apply an open transitional phrase [rather than the closed transitional phrase ‘consisting of’] to the preamble in light of the specification.” As previously presented, Claim 13 is in the proper form of a *Markush Group*. As stated in MPEP 2173.05:

Alternative expressions are permitted if they present no uncertainty or ambiguity with respect to the question of scope or clarity of the claims. One acceptable form of alternative expression, which is commonly referred to as a Markush group, recites members as being “**selected from the group consisting of A, B and C.**” See *Ex parte Markush*, 1925 C.D. 126 (Comm’r Pat. 1925).

Emphasis Added. As noted by the Examiner, the specification recites alternative communication mediums including: R/F, telephone, cable, fiber optics, satellite, power line carriers, etc. (See Application, page 7, lines 19-21). As such, claim 13 presently represents a textbook example of a markush group, and properly uses the terms ‘consisting of’ followed by a list of group members joined by the word ‘and’. In fact, MPEP 2173.05(h) indicates that it is improper to use the term “comprising” instead of consisting of.” Citing *Ex parte Dotter*, 12 USPQ 382 (Bd. App. 1931). Therefore, Applicant respectfully asserts that the objection to Claim 13 be withdrawn.

Claim Rejections – 35 USC §112

The examiner rejected claims 14-19 under 35 USC 112, 2nd Paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, the Examiner noted that claims 14-19 did not include sufficient antecedent basis for the terms “the input signal” and “the utility status”. Applicant has

amended claims 14-19, and the amended claims are believed to be in compliance with the requirements for antecedent basis.

Claim Rejections – 35 USC §103

The examiner rejected claims 12-21 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,031,209 to Thornborough et al. ("*Thornborough*") in view of U.S. Patent No. 6,199,133 to Schnell ("*Schnell*") and further in view of U.S. Patent No 6,212,550 to Segur ("*Segur*"). In light of the remarks below, Applicant respectfully asserts that Claims 12 - 21 are patentable over *Thornborough*, *Schnell* and *Segur*.

A. The Present Invention

Independent claim 12 recites a system for monitoring and transmitting utility status via a universal communications interface. The universal communications interface is configurable for communicating with a plurality of different types of communication devices. Each different type of communication device is operative to communicate with a receiving device via one of a plurality of different communication mediums. A slot functionally coupled to the universal communications interface is configured to interchangeably connect one of the plurality of different types of communication devices.

Accordingly, an advantage of the present invention, as defined in independent claim 12, is its ability to adapt to new and changing communication mediums by interchangeably accepting different types of communication devices. As stated a page 2, lines 1 - 12 of the Specification:

A significant drawback of prior art AMR devices is that they are functionally limited in their communications options and are thus not generally adaptable to evolving communications technology. AMR devices are typically constructed with hardware and/or software components for transmitting and receiving AMR data over a single communications medium. Some prior art AMR devices may be equipped with components for transmitting and receiving AMR data over a finite number of communications media. However, as communications technology advances and new and different communications mediums are selected for the

transmission of AMR data, incompatible AMR devices must be replaced at great expense to the utility companies.

B. The 35 USC §103 Rejection

According to the 103(a) rejection set forth in the Office Action, *Thornborough* discloses a system for monitoring and transmitting utility status [citing col. 4, line 51 through col. 5, line 2 and col. 6, lines 62-68] via a universal communications interface [citing the FSK BELL transmitter 53 and the FSK CCITT transmitter 54, line 61, buffer 62 and MUX 55 in combination], comprising: an input interface [citing the transducer circuit 252]; a processor [citing micro-computer 22] functionally coupled to the input interface for receiving utility status signals from the input interface [citing col. 5, lines 7-11 and 20-24] and operative to generate a status message [citing col. 16, lines 10-15 and 29-40] based on the utility status signal; a universal communications interface [citing the FSK BELL transmitter 53 and the FSK CCITT transmitter 54, line 61, buffer 62 and MUX 55 in combination] functionally coupled to the processor [citing col. 6, lines 51-55], and configurable for communicating with a communication device [citing, as an example, a telephone modem] operative to communicate with a receiving device [citing the computer of the utility control center and col. 4, lines 29-49] via a communication medium [citing, as an example, a telephone line and col. 1, lines 19-25].

The Office Action, however, admits that *Thornborough* **does not disclose or teach that the universal communications interface is configurable** for communicating with a plurality of different types of communication devices communicating with a receiving device via a plurality of different communication mediums, as required by independent Claim 12 (see Final Office Action, Page 4). The Office Action further admits that *Thornborough* **fails to disclose or teach a slot functionally coupled to the universal communication interface** and configured to interchangeably connect on of the plurality of different types of communication devices (see Final Office Action, Page 4). As indicated on Page 5 of the Office Action, *Thornborough* **also fails to disclose or teach a processor for formatting a status message** into a format compatible with a connected communication device. Therefore, it is clear that *Thornborough* fails to include many of the elements of the present claim, but for fundamentals of AMR systems configured for communications over a single communications medium.

To provide each of these missing features, the Office Action relies on *Schnell* and *Segur*. Specifically, the Office Action alleges that *Schnell* discloses a universal communications interface [citing the network system shown in FIG. 2A] that is configurable for communicating with a plurality of different types of communication devices [citing col. 5, lines 18-49], where each different type of communication device is operative to communicate with a receiving device [citing col. 1, lines 54-57] via one of a plurality of different communication mediums [citing col. 6, lines 20-22]. The Office Action further alleges that *Schnell* discloses a slot [citing slots 202a-1 in FIG. 2A] coupled to the universal interface. The Office Action argues that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the universal communication interface, as disclosed by *Schnell*, in the system disclosed by *Thornborough* to communicate with multiple network devices so as to manage those multiple devices (see Office Action Page 5).

The Office Action further admits, however, that **the combination of *Thornborough* and *Schnell* fails to disclose** a processor that is operable to format a status message into a format compatible with the connected communication device, and operable to transmit the status message to a universal communication interface for transmission to a connected communications device (see Office Action, Page 5). To provide these missing claim elements the Office Action relies on a third reference, *Segur*, which the Office Action alleges discloses a multi-format communications client-server [citing reference 50 in FIG. 2], where a processor formats a selected messages into a format compatible [citing block 178 and col. 2, lines 47-50] with a connected communication device, which then transmits the formatted status message to a communication interface [citing reference 66] for transmission to connected devices. The Office Action argues that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the features of the controller and processor, as disclosed by *Segur*, in the allegedly obvious combination device of *Thornborough* as modified by *Schnell*, to provide message formatting such that the processor could format and transmit a status message in a format compatible with a data format of the connected communication device (see Office Action Page 6).

Applicant respectfully disagrees that it would have been obvious to one of ordinary skill in the art to provide each of those independent claim elements of the present invention that are

missing from *Thornborough* based on that which is taught by *Schnell* and *Segur*. There is no motivation to combine the *Thornborough*, *Schnell* and *Segur* references, and there is no objective suggestion that such a combination would be preferable, or even successful. The theory that the combination may be motivated by advantages in communication and management of meter reading devices is inaccurate because *Schnell* actually teaches away from the combination, as described in detail below.

As indicated by the Federal Circuit, an Examiner can satisfy a burden of obviousness in light of a combination of references "only by showing some objective teaching [leading to the combination]" In re Fine, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1998). Therefore, combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability. That is the essence of improper hindsight reasoning. See, e.g., Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed. Cir. 1985). Applicants admit that though the range of sources available as evidence of motivation can flow from the prior art references themselves, *or one of ordinary skill in the art*, the showing of motivation must be clear and particular. See, e.g., C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352 (Fed. Cir. 1998). Thus, broad conclusory statements regarding the teaching of multiple references, standing alone, are not "evidence." See, e.g., McElmurry v. Arkansas Power & Light Co., 995 F.2d 1576, 1578, 27 USPQ2d 1129, 1131 (Fed. Cir. 1993). Applicant respectfully asserts that there is no support for motivation to combine the references other than the Office Action's broad conclusory assertion, unsupported by clear and particular motivation, that the references could and would be combined in order to achieve enhanced communications between meters and multiple network devices.

Thornborough discloses an AMR system which is configured for communications over a single communications medium, i.e., a telephone network. While the system of *Thornborough* is able to transmit signals in accordance with both BELL and CCITT standards, all transmission signals are transmitted via a TX Out line 58 that is connected to a telephone interface circuit 42. See Thornborough, col.6, lines 55-65. *Thornborough* does not disclose the use of any communication medium other than a telephone system for transmitting AMR data. Furthermore, there is no suggestion in *Thornborough* that another communication medium could be used,

especially one permitting communication with multiple devices requiring a variety of data formats and a variety of communication connections.

Though the Office Action depends on *Schnell* and *Segur* to provide such a communications interface, *Schnell* and *Segur* lack any support for motivation to combine their teachings with *Thornborough* to render obvious the invention defined by Claim 12 of the present invention. Applicant admits that *Schnell* discloses a management communication bus that permits networking devices, such as computers, to communicate. The purpose of the management communication bus in *Schnell* is to avoid burdensome conversion of communications between each and every networked component or the requirement of a system-wide protocol. Therefore, formatting a message into a format compatible with a connected communication device on the network, as is described in Claim 12, is *inconsistent* with the purpose of the *Schnell* disclosure because *Schnell* seeks to avoid this very requirement (see, e.g., *Schnell* col. 1, lines 47 to col. 2, line 20). Thus, one of ordinary skill in the art would fail to combine the teachings of *Schnell* and *Segur* with that of *Thornborough* to generate the present invention, as claimed, because *Schnell* seeks to avoid formatting of messages as required by Claim 12. In spite of this, the Office Action states that this element is supplied by *Segur*, in combination with *Schnell*, to provide the missing elements of *Thornborough* in rejecting Claim 12.

Segur discloses a multi-format communications client-server. The Office Action alleges that *Segur* includes a processor that formats or converts a status message for transmission by a universal communications interface (See Office Action, page 5). After reciting that *Segur* provides the missing pieces to the present invention, the Office Action states that ‘therefore’ it would have been obvious to combine *Segur* with *Schnell* and *Thornborough*, adding that the benefit is in message formatting for universal communication interfacing. However, as noted above, this motivation is inconsistent with the purpose of the system of *Schnell*, which seeks to avoid such a requirement. As a result, there is no motivation to combine the *Thornborough*, *Schnell* and *Segur* references.

For the foregoing reasons, Applicant does not believe that either *Thornborough*, *Schnell*, or *Segur*, alone or in combination, describes, teaches or suggests, all of the elements recited in independent Claim 12. Accordingly, Applicant submits that independent Claim 12 is allowable

over the cited art. Dependent claims 13 - 21, which include all of the elements of independent claim 12 are therefore also believed to be allowable.

CONCLUSION

The foregoing is submitted as a full and complete response to the Office Action mailed March 31, 2003. Applicant requests that all pending claims be allowed because, as shown above, they are patentable over the art of record. If there are any issues that can be resolved by a telephone conference or an Examiner's Amendment, the examiner is invited to call the undersigned attorney at (404) 853-8214.

Respectfully submitted,



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